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## THE DETERMINANT FACTORS FOR INTERNAL MIGRATION IN RURAL AREAS OF NORTH GONDAR: THE CASE OF DABAT DISTRICT

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### ABSTRACT

*In most studies emphasis has been given to international migration. This clearly strikes a chord to have emphasis for internal migration as equally important as that of International Migration. Hence in recognition to these facts, this study mainly aimed at investigating the patterns of migration and major determinants of internal migration in north Gondar woredas particularly of dabat district. To do so the study employed both descriptive and econometrics analysis tools to analyze the data. The result of the study firstly, revealed that the study area is characterized by temporary and seasonal migration. Secondly, the main determinant forces for households' internal migration decision were crop failure, large family size, being female household bread maker, and lack of alternative income sources as push factors. On the other hand, household head positions, number of educated family member were as pull factor for internal migration decision in the study area. Moreover, poor infrastructure reflected in long distance walk to the main market and main road found to negatively affect internal migration decision.*

**Keywords:** Internal Migration, Determinants, Econometrics model

### 1.INTRODUCTION

In Ethiopia at different times in history, migration studies have been touched the various parts of its tilt. In the past it has been linked with political issues due to the prevalence of political crisis in the history of the country. It is due to the fact that migration has been attached with political and socio-economic nature of the past. However following the dismantled of the dergue regime the themes shifted from political view into economic arena of migration. Subsequently emphasis has been given to the interface between

migration and food security (Gebre, 2001), and recently migration has shown the linkage between migration and livelihood (Mberu, 2006).

In the country though the estimates of the number of internal migrants are not available; however it is evident from existing studies that approximately 50 to 70 percent of the population migrates temporarily or permanently within the country (Mberu, 2006, cited in Fransen, S. and Kuschminder, K., 2009). However it is obvious that the internal migration is much higher than that of the international migration in the country (ibid). This clearly strikes a chord for the need to have emphasis to internal migration equally important as the international one. Yet ample studies have shown an overzealous obsession on the investigation of international remittance and the international migration, while the determinants the internal migration and thereby the role of domestic remittance left unseen (Wouterse, F. 2010).

Concerning causes of migration and the utilization of remittance studies have been conducted in Ethiopia in various parts of the country, yet most of them still stressed on the external migration and the inflow of international remittance which overlooked the separate investigation of the main determinants of internal migration in rural Ethiopia (Muhammad Abdu, 2006). Though emphasis is given to internal migration by the study of Berhe Mekonnen in (2011), much stress is given for urban migrants and international migration. Hence the determinants of internal migration and the spatial patterns of migration found to be open for further study to isolate the main socio-economic variables that affects the prospects of internal migration

In the highlands of Amhara region rural-rural migration was more common than rural-urban migration though young individuals show preference to urban areas (Devereux, Nd., cited in Deshingkar P. and Grimm S. , 2005). Similarly currently the study of Getnet and Mehrab in (2010) clearly articulated that the pervasiveness of internal migration in Ethiopia is mainly due to the predominance of rural to rural migration over the other patterns of migration that occurred in the country. For the prevalence of rural to rural migration the presence of large scale farming areas around the migrants' residence are the prime pull factors which could motivate rural households to have either temporary or permanent migration.

In North Gondar there are evidences of seasonal migration from areas of high population districts like dabat district following the weeding, clearing and harvesting seasons of the large scale farming practice of metema and humera which are the main commercial crop producers in the country. Hence, if the internal remittance is required to contribute to the wellbeing of the rural household and the subsistence agriculture needed to be improved; the main socio-economic determinants of internal migration should be given precedence in the research agendas of rural livelihood. Therefore, this study stands to investigate the patterns and the major determinants of internal migration in north Gondar districts particularly of Dabat district.

## 2. METHODOLOGY

### 2.1 DESCRIPTION OF THE STUDY AREA

Dabat is one of the districts in the Amhara Region of Ethiopia. As part of the Semien Gondar Zone, Dabat is bordered on the south by Wegera, on the west by Tach Armachih, on the northwest by Tegeda, and on the northeast by Debarq. Towns in Dabat include Dabat and Wekin. It is the one among the 20 rural districts in North Gondar Zone, which has the total areas of 173, 285 kms and located 75 kms away from the center of Gondar Town.

Agriculture is the main livelihood strategy to the peoples of the district. However, still the sector remained to be the strategy of hand to mouth practice. Food shortage and unemployment is the prime feature of the district. As a result in the district 17 kebeles are dependent on the government aid each year (FEDO, 2014). Soil erosion and shortage of rainfall were still difficulties of the woreda for the majorities of the kebeles as per the report of the office of Finance and Economic development.

### 2.2 RESEARCH DESIGN

In this study both the quantitative and qualitative designs were employed to achieve the aforementioned objectives. However, the major research design of the study was the (survey design) quantitative study with the support of sample survey. Hence the main purpose of the qualitative study is only to supplement the investigation of the sample survey. In this section therefore, data collection tools and instruments, procedures of sample size determination and method of data analysis for both quantitative and qualitative data types are discussed in detail as follow.

A multistage sampling technique was employed to select sites and draw sampled households for the study. Firstly North Gondar purposively selected since it is found to be the region exposed to prevalent internal migration due to proximity to Metema and Humara large scale farming practice and the expansion of urbanization in towns. Secondly one district was selected purposively which is assumed to have history of migration in the past. Finally, one kebele from the low land and three kebeles from the dega were selected. Then the sample size determination respects the amount of sample required for logistic regression. To this effect sample size determination takes in to consideration the minimum ratio of valid cases to independent variables for logistic regression to be 10 to 1 (Gorard, 2004 and Long and Freese, 2006). Therefore the independent variables in this study are 11, which require a minimum of 110 households to have good output for logistic model. Though this is the minimum requirement for logistic regression, it is up to the researcher to increase the size as long as other factors such as the availability of budget, time and the objectives and nature of the research are not hindering the researcher (Kothari, 2004). Putting these factors in to consideration the study employed 120 households which were distributed proportionally to each kebeles of the study area.

## 2.3 METHODS OF DATA ANALYSIS

Both descriptive statistics and logistic regression were employed to analyze the quantitative data. The descriptive statistics were used to analyze the demographic and socio-economic variable. In this case mean, mode, percentage, maximum and minimum computations were executed. Whereas, the regression analysis was another tool that have been utilized in the analysis. To this effect binary logistic regression which signifies the effect of each independent variable on the dependent variable employed.

## 2.4 VARIABLE DEFINITIONS AND EXPECTED INFLUENCES

**Dependent variable:** The Dependent variable in this study is households' internal migration decision. The presence of one migrant individual and above in the household represents as migrants' household otherwise non-migrants' household.

There are about eleven explanatory variables that were expected to influence households' internal migration decision. All these variables are illustrated in the following Table 3.4.1 below.

**Table: 2.1: Characteristics of Variables and expected signs**

Variables	Characteristics of variables	Expected influence
Sex of the Household Head (1=male, 0 = female)	Dummy	Negative
Age of the Household Head	Continuous	+/- (Indifference )
Experience of Crop Failure (1=Yes, 0=No)	Dummy	Positive
Position of the Household head (1=Yes, 0=No)	Dummy	Positive
Alternative Income source (1=Yes, 0=No)	Dummy	Positive
Tropical Livestock Unit	Continuous	Negative
Distance	Continuous	Negative
Educated family size	Continuous	Positive
Total family size	Continuous	Positive
Total farm size	Continuous	Negative
Educational status of household head (1=literate 0= illiterate)	Dummy	Negative

### 3.RESULTS AND DISCUSSION

#### 3.1DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILES OF THE RESPONDENTS

In this section, mainly the demographic characteristics as well the socio-economic situations of the respondent households are presented. As shown in the Table 3.1 below, the majorities of the respondent households are male headed which accounts 89.19 % of the total sample survey. The cross tabulation result indicated that among the total migrants household the larger share i.e. 75 % of the respondents are male headed households. Looking in to the educational status of the respondent households, about 66.67 % of the respondents households are Illiterate, where as the remaining are literate.

However, the majorities of the respondents (78.9 %) households under literate categories are only who reads and write. Putting differently, the majorities of the respondents those considered as literate are without formal education but are able in reading and writing. Based on the cross tabulation, 62.25 % of the total migrants are illiterates who even couldn't read and write anything.

At the same time, in the table below the presence extended family outside the residence area were assessed as one of the demographic factor with the assumption that it could have influence on migration. To that effect, about 45.95 % of the total respondents have families outside their original residence. Out of this, the majorities of the migrants' i.e. 62.5 % of are illiterate.

**Table 3.1: Sex, Education, and Family Characteristics of the Respondent**

Characteristics		Migrants N=32		Non-Migrants N= 79		Total
		F	%	F	%	%
Sex:	Male	24	75%	75	94.90 %	89.18 %
	Female	8	25%	4	5.10 %	10.82 %
Educational Status:	Literate	12	37.5%	25	31.65 %	33.33 %
	Illiterate	20	62.5%	54	68.35 %	66.67 %
Extended family:	Yes	30	93.75 %	21	26.58 %	45.95 %
	No	2	6.25 %	58	73.42 %	54.05 %
Continuous variables						
Age of HH	Max	82				

Family size	Min	22
	Mean	48
	Max	9
	Min	1
	Mean	4.5

Source: Own survey: 2015.

Moreover, in Table 3.1, the family size as well the age of the respondent households has been analyzed. As shown above in the table, the maximum and minimum age of the respondent households is 82 and 22 respectively. But the mean ages of all the respondents in the study area is 48 years old. Whereas, the maximum and minimum family size of the households' in the study area is 9 and 1 family members respectively. Whereas, the mean family size in the study area are 4.5 member.

Under this sub-section, the socio-economic characteristics of the respondent households were descriptively analyzed. Firstly, it would be good to see the main occupation of the respondents in the study area. The survey result indicated that 96.4 % of them are employed in the agricultural activities, whereas the remaining 3.6 % are either unemployed or engaged in non-agricultural activities. At the same time, the income categories of the respondent households were analyzed in terms of percentages. As shown in the Table 3.2 below, almost 70 % of the total respondents were found under the income categories of less than 250 birr per month. This could signify that almost the majorities of the households are poorer.

**Table: 3.2: Income categories of the Respondent Households**

Income categories (ETB <sup>*</sup> )	Frequency	Percent (%)
Less than 250	78	70.3
250 – 400	22	19.8
401 – 550	8	7.2
551 – 700	1	0.9
More than 1000	2	1.8
Total	111	100%

Source: Own survey, 2015. \* ETB= Ethiopian Birr

Moreover, to know further the wealth situations of the respondents; the livestock possession of the households were taken in to consideration. In this case, the Tropical Livestock Unit (TLU) estimations were carried out to have uniform measurement for the different types of livestock that could be reared by the

households' of the study area. As previewed in Table 3.3, about 60.35 % of the total respondent households possessed livestock's which is below the average of Tropical Livestock Unit (TLU) of the total households.

**Table: 3.3: Distribution of Livestock by the TLU estimation**

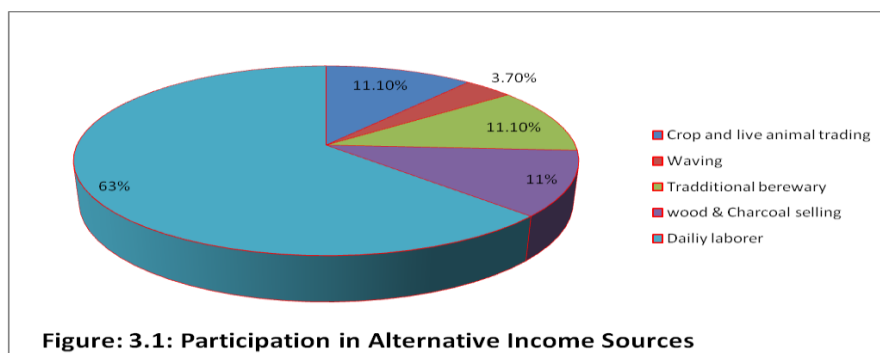
TLU*	Frequency	Percent (%)
< 1	23	20.72 %
1 – 3	44	39.63 %
3.01 – 5	19	17.11 %
5.01 – 7	3	2.70 %
>7	22	19.84 %

Maximum = 80.05

Mean = 3.49

Source: Own survey, 2015. \* TLU = Tropical Livestock Unit

Have a look at for both the income categories and the TLU estimation of the respondents indicates that the wealth status of the majorities of the respondent households in the study area is very low. Cognizant to this, further analysis have been necessitated to see the presence of supplementary income generation activities that may support low level income situation of the households. As shown in the Figure 3.1 below, from the total respondents 25.2 % of the respondents found to supplement their income through various alternative income generating activities. However, almost 74 % of them employed in daily laborer and selling of wood or charcoal.



### 3.2 Durations and Patterns of Internal Migration in the Study Area

In this sub-section mainly the level internal migration, the durations and the patterns of migration are discussed. From the total 120 surveyed households about 34.16 % of the households have migrant family members both internal and international. Specifically, the level of internal migration in the study area is 28.82 % that means excluding household with international migration. Therefore, all the analysis under this study was carried out without the inclusion of respondents whom migrants are outside the country.

As show in the Table: 3.1 below, the durations of internal migration in the study area is dominated by temporary migration which accounts more than half of the migrant. However, 15.63 % of the respondent households have migrants of both permanent as well temporary migration duration. Whereas the patterns of migration i.e. the direction internal migration is mainly towards rural areas which accounts 71.13 % of the total migration. This is mainly due to the presence of large scale rural farming areas such as Metema and humara that mostly serve as the main destination for temporary migration. This, result can be justified due to the fact that among the total migrants to the rural areas, 95.8 % of them are moving to the rural areas for daily as well contractual works during the pick agricultural activities of the aforementioned broad based agricultural farming areas.

**Table: 3.4: The Durations and Patterns of Internal Migration in the Study Area**

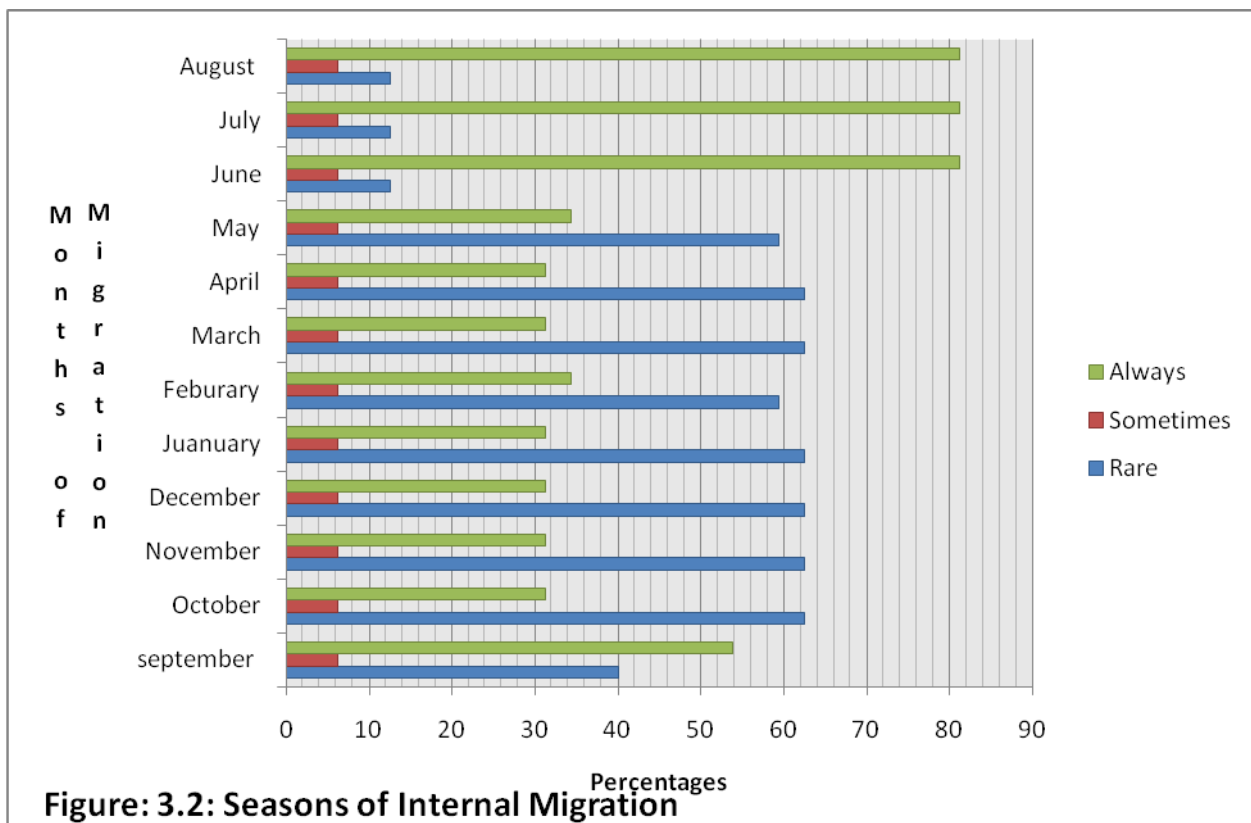
Durations	Frequency	Percent (%)
Permanent	9	28.12
Temporarily	18	56.25
Both	5	15.63
Patterns	Frequency	Percent (%)
Towards Urban	7	28.87
Towards Rural	25	71.13

Source: Own survey, 2015.

At the same time it is worth mentioning to discuss the specific months of Migration, beyond duration and direction. To this end respondents were asked to indicate months in which migration is occurred frequently. As indicated in the Figure below, June, July and August are the months in which migration is occurred frequently as indicated with the green color string in the figure. Relatively, following, June, July and August, September too fond to be the migration month in the figure. Since, the majorities of the



migration pattern is towards the rural area, migration as shown above, the migration seasons are associated with basic pick agricultural seasons of Jun, July, August and sometimes also September.



### 3.3 The Determinants of Internal Migration in the Study Area

Under this section the binary logistic regression model was employed to identify the determinant factors that could affect internal migration in the study area. However before undergoing the analysis, multicollinearity test must be done to avoid variables that may affect the model output. Therefore, Variance Inflation Factors (VIF) and pair-wise correlation techniques were used to test the multicollinearity test for contiguous and discrete variables respectively.

VIF shows how the variance of an estimator is inflated by the presence of multicollinearity. As  $R^2$  approaches 1, the VIF increased tremendously. That is, as the extent of collinearity between the variables increases, the variance of an estimator increases, and in the limit it can become infinite (Gujarati, 2004). Obeying this rule each continuous variable regressed against the remaining continuous variables and as shown in Table 3.5, the values of VIF for all variables were found to be below 2.00, which imply the absence of serious multicollinearity problem for all continuous variables.

$$VIF = \frac{1}{1-R^2}$$

**Table:3.5: Colinearity Diagnosis for Continuous Explanatory Variables**

Variables	$R^2$	$1 - R^2$	VIF
AGEHH	0.064	0.936	1.07
EDUFAM	0.117	0.883	1.13
TOTFAMSIZ	0.107	0.893	1.12
TLU	0.081	0.919	1.09
TOTFARMSIZ	0.103	0.897	1.11
DISTAMAIN	0.113	0.887	1.13

Source: Computed from own survey, 2013.

On the other hand the discrete variables were undergoing in to the muticollinearity test through pair-wise correlation. As shown in the Table 3.6 below, there is no as such significant association among the variables.

**Table: 3.6: Colinearity Diagnosis for Discrete Explanatory Variables.**

Variables	SEXHH	POSHH	EDUCHH	CROPFAIL	ALTERN
SEXHH	1	-0.004	-0.062	-0.042	0.069
POSHH		1	0.156	0.112	-0.030
EDUCHH			1	0.046	-0.103
CROPFAIL				1	-0.048
ALTERN					1

Source: Own survey, 2015.

So far the multicollinearity tests for both continuous and discrete variables assured that there is no as such problematic multicollinearity that could affect the model. As a result all the eleven explanatory variables were entered in to the binary logistic regression to identify the determinants factors of internal migration.

It is worth mentioning to interpret indicators of how the model is good before interpretation of the explanatory variables. Firstly, through the classification table, the correct predication of all the samples

used were 87.4 %, whereas the sensitivity (correct prediction of migrants' migrants' household) is 78 % and Specificity ( correct prediction of non-migrants' household) is 91 %. In this study the model chi-square also used as one of the indicator how the model is good. To this effect, the model chi-square specifically the omnibus tests of models coefficients value is 84.11% on 11 degree of freedom which is highly significant beyond 0.001 level signifying that the explanatory variables used in the binary logistic regression have joint significant important in predicting the households' migration decision.

In the last the Nagelkerke pseudo R-square was used to know how well the variables used in the model explains in the variation of data. In this regard, the variables employed in this study were in a position to explain 76 % of the variations. In the other word there are also other variables that could influence households' internal migration decision.

**Table 3.7: Logistic Regression Model Output for the Entire Explanatory Variables**

Variables	Coefficient	Odds Ratio	Wald Statistics	Sign. Level
SEXHH	-2.558	0.077	5.192 <sup>**</sup>	0.023
POSHH	3.406	30.130	10.799 <sup>***</sup>	0.001
EDUCHH	-0.039	0.961	0.002	0.963
CROPFAIL	2.741	15.509	3.407 <sup>*</sup>	0.065
ALTERN	4.697	109.658	8.395 <sup>***</sup>	0.004
AGEHH	0.021	1.021	0.533	0.465
EDUFAM	0.758	2.133	3.266 <sup>*</sup>	0.071
TOTFAMSIZ	0.761	2.140	6.158 <sup>*</sup>	0.013
TLU	-0.234	0.792	1.102	0.294
TOTFARMSIZ	0.918	2.504	2.458	0.117
DISTAMAIN	-0.271	0.763	4.192 <sup>**</sup>	0.041

Nagelkerke pseudo R-square (%) = 76.0

Correct Prediction of all samples (%) = 87.4

Correct Prediction of Productive Users (sensitivity) (%) = 78

Correct Prediction of Non-Productive Use (specificity) (%) = 91

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**Source:** Computed From Own Survey, 2013. \*\*\*, \*\*, and \* represents the significance level at 1 %, 5 % and 10 % respectively.

After observing how the model fits well, it is now time to see how each of the explanatory variables affects the migration decision. As shown in the above table 3.7, out of the eleven explanatory variables, seven of them were significantly influence households' internal migration decision. These are, sex of the household (SEXHH), position of the household head (POSHH), experience in crop failure (CROPFAIL), Education of the family members (EDUFAM), total family size (TOTFAMSIZ), employment in alternative activities (ALTERN) and the distance to the main road (DISTAMAIN) were influencing internal migration decision.

As expected sex of the household head (SEXHH) found to influence households' migration decision negatively and significantly at less than 5% probability level ( $p < 0.05$ ). The odds ratio favoring migration decision decreased by the factor of 0.077 for male headed households. The result have showed agreement with the anticipated hypothesis in which female household heads are exposed for migration due to their great need of help than male counter parts. The same result has been found by (Ackah & Medvedev, 2011).

On the other hand household involvement in different types of position (POSHH) in the location found to influence households' migration decision positively and significantly at less than 1% probability level ( $P < 0.01$ ). The odds ratio favoring migrants' decision increased by a factor of 30.13 for households those have some sorts of position in the kebele. This result has consistency with the prior expectation of the study in which the households with some sorts of position in the kebele will have sufficient information about the significance of migration as a livelihood strategy. The result has coincidence with Aliya, H. and Lubna. S. (2000)

Experience in crop failure (CROPFAIL) also have been found to positively and significantly influence households' migration decision at less than 10% significance level ( $p < 0.1$ ). The possible interpretation of this output is that crop failure alone keeping others factors constant can trigger migration decision by the a factor of 15.50 for those who experience crop failure. This result is consistent with prior expectation of the study.

The number of family members who are completed secondary school and beyond represented as (EDUFAM) is also positively and significantly influence households' internal migration decision at less than 10 % significance level ( $p < 0.1$ ). The odds ratio for this variable indicates that keeping other factors constant EDUFAM alone can increase the migration decision by the factor of 2.13 for an increment of one family member who completed secondary school or beyond. This variable too indicates similarity with the prior expectation of this study. The study of Robert, E. & James, E. (2013) also showed the same result in terms of education of family members. Yet the study of Berhe, (2011) opposes the result because his study is conducted in the urban area.

The total number of family member (TOTFAM) similarly influence households' migration decision positively and significantly at less than 10% significance level ( $p < 0.1$ ). The odds ratio for this variable indicated that for one increment of family size the, the migration decision increased by the factor of 2.14. The model output for this variable also conform to the initial expectation of this study, in which as the family size becomes it will be the push factor for households to undertake migration.

Employment in alternative income generating activities (ALTER) as per the model output is positively and significantly influences households' migration decision at less than 10 % significance level ( $p < 0.1$ ). The odds ratio for this variable showed that households who are employed in alternative income sources increased by the factor of 109.65 than those who did nothing. Surprisingly, the result is beyond the expectation instead of reducing the migration decision, it highly triggers migration. The main reason for this variable is even those who are employed in alternative income generating activities are engaged in petty activities such as daily labor, wood and charcoal selling or in traditional brewery.

The last variable is the total distance from home to the main road (DISTAMAIN) found to be negatively and significantly influence households' migration decision at less than 5 % significance level ( $p < 0.05$ ). The odds ratio revealed that one kilometer increment of distance found to reduce the migration decision by the factors of 0.78. This result also have strong agreement with the prior hypothesis of this study in which the more the distance the lower the migration decision. This is due to the fact that distance can constrain migration information as well makes the cost of migration very high.

#### **4.CONCLUSION AND RECOMMENDATIONS**

The conclusions of this study can be presented as follow: In the first case it has been concluded that the duration of internal migration in the study area is characterized by temporary and seasonal migration. At the same time, it has been confirmed that the pattern of migration is mainly towards rural areas as daily or contract laborer in the large scale farming areas of Metema and Humera.

Secondly, the main determinant forces for households' internal migration decision were crop failure, large family size, being female household bread maker, and lack of alternative income sources as push factors. On the other hand, household head positions, number of educated family member were as pull factor for internal migration decision in the study area. Moreover, poor infrastructure reflected in long distance walk to the main market and main road found to negatively affect internal migration decision.

On the basis of the findings and conclusion of the study, ways are forwarded as follow for various stakeholders for whom it may concern. Firstly, the national government should give equal emphasis to internal migration as equally important as that of the international migration.

Secondly, the concerned bodies at different level should give emphasis to the multiple factors of migration. In this case, establishment of sufficient secondary school with minimum standard could reduce the migration trend of rural youth to the urban areas in search of better education. At the same time, appropriate job opportunities and enabling environments should be done for those who terminate

education beyond secondary school. Crop failure is also main push factor for migration. In this regard, the ministry of agriculture in general and the woreda level agricultural offices in particular should train the farmers about the successful soil and water conservation practices as well the appropriate agronomic practices to the study area.

It has been also understood that lack of attractive alternative income generating activities in the study area instigates migration in the area. This broad cast a message that the woreda youth, Children and women office and any concerned body need to create an enabling environment for youth entrepreneurship and creativity so that they can get alternative livelihood option in the residence without migration Finally this study recommends for the need to have further in-depth study on internal migration challenges and the impact of internal remittance.

## 5. REFERENCES

Akah, C. and Medvedev, D. (2010). Internal Migration in Ghana: The Determinants of Welfare Impacts. <https://openknowledge.worldbank.org/bitstream/handle/10986/3760/WPS5273.pdf?sequence=1>

Aliya H. And lubna S. (2000). Determinants of internal migration in pakistan: Evidence from the labour force survey, 1996-97. *The pakistan development review* 39 : 4 part ii (winter 2000) pp. 695–712.

Berhe Mekonnen Beyene (2011). *Determinants of Internal and International Migration in Ethiopia*. MEMORANDUM No 24/2011, published by the University of Oslo Department of Economics.

Bohra, P. & Massey, D. S. (2009). Processes of internal and international migration from Chitwan, Nepal. *International Migration Review*, 43(3), 621-651.

Deshingkar P. and Grimm S. (2005). Internal Migration and Development: A Global Perspective. Overseas Development Institute .IOM Migration Series No. 19.

Deshingkar, P. and Castaldo, A. (2012). Internal Migration, Remittance and Poverty: Evidence from Ghana and India. Migrating out of Poverty Research Programme Consortium, Working Paper, 7.

Finance and Economic Development Office (FEDO) (2015). The quarterly Report of the Dabate woreda.

Getnet Alemu and Mehrab Malek (2010). Implications of Land Policies for Rural-urban Linkages and Rural Transformation in Ethiopia. Development Strategy and Governance Division, International Food Policy Research Institute – Ethiopia Strategy Support Program 2, Working Paper No. 15.

- Gorard, S. (2004). Quantitative Methods in Social Sciences: The Role of Numbers Made Easy. King's Lynn, Norfolk, Great Britain.
- Garip, F. (2006). Social and economic determinants of migration and remittances: An analysis of 22 Thai villages.
- Fransen, S. and Kuschminder, K (2009). Migration in Ethiopia: History, Current Trends and Future Prospects. Paper Series: Migration and Development Country Profiles, Maastricht Graduate School of Governance.
- Kothari, C.R. (2004). Research Methodology: Methods and Techniques. Second Revised Edition. New Delhi, New Age International publisher.
- Long, J. and Freese, J. (2006). Regression Model for Categorical Variables Using Stata (2<sup>nd</sup> ed.), College Station, TX: Stata Press.
- Mberu, U. (2006). Internal Migration and Households living Condition in Ethiopia. Demographic Research, Vol. 14, No. 21. Retrieved from <http://www.demographic-research.org/volumes/vol14/21/>
- Muhammed Abdu (2006). THE CAUSES AND CONSEQUENCES OF MIGRATION IN TIGRAY REGION: THE CASE OF HINTALO-WEJERAT WEREDA. Unpublished MA thesis, Addis Ababa University Documentation Center, Addis Ababa.
- RESAL (1999) 'Employment and Labour Mobility in Ethiopia', Reseau Europeen de Securite Alimentaire: Rural Development and Food Security Division of the European Commission.
- Robert, E. and James, E. (2013). Determinants of Internal Migration in Tanzania. Journal of Economic Development, ISSN 2222-1700, VOL. 4, No9, 2013.
- Wouterse, F. (2010). Internal Migration and Rural Service Provision in Northern Ghana. IFPRI Discussion Paper 00952 January 2010, Development Strategy and Governance Division Knowledge, Capacity, and Innovation Division.